



Be Right™

SAFETY DATA SHEET

Issue Date 14-Jan-2021

Revision Date 26-Jan-2024

Version 4.7

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1. IDENTIFICATION

Product identifier

Product Name Phthalate-Phosphate Reagent

Other means of identification

Product Code(s) 2615199

Safety data sheet number M00099

Recommended use of the chemical and restrictions on use

Recommended Use Water Analysis. Determination of nickel. Determination of cobalt.

Uses advised against Consumer use.

Restrictions on use For Laboratory Use Only.

Details of the supplier of the safety data sheet

Manufacturer Address

Hach Company, P.O.Box 389, Loveland, CO 80539, USA, +1(970) 669-3050

Emergency telephone number

+1(303) 623-5716 - 24 Hour Service

2. HAZARDS IDENTIFICATION

Classification

Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Serious eye damage/eye irritation	Category 2A
Specific target organ toxicity (single exposure)	Category 3

Hazards not otherwise classified (HNOC)

Not applicable

Label elements

Signal word

Warning



Hazard statements

EN / AGHS

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H319 - Causes serious eye irritation
H335 - May cause respiratory irritation

Precautionary statements

P280 - Wear protective gloves, protective clothing, eye protection, and face protection
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P337 + P313 - If eye irritation persists: Get medical attention
P261 - Avoid breathing dust/fume/gas/mist/vapors/spray
P271 - Use only outdoors or in a well-ventilated area
P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing
P312 - Call a POISON CENTER or doctor if you feel unwell
P403 + P233 - Store in a well-ventilated place. Keep container tightly closed
P405 - Store locked up
P501 - Dispose of contents/ container to an approved waste disposal plant

Other Hazards Known

May be harmful in contact with skin
Causes mild skin irritation

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance

Not applicable

Mixture

Chemical Family Mixture.
Chemical nature Inorganic Compound.

Percent ranges are used where confidential product information is applicable.

Chemical name	CAS No	Percent Range	HMRIC #
Tetrasodium pyrophosphate	7722-88-5	20 - 30%	-

4. FIRST AID MEASURES

Description of first aid measures

General advice Show this safety data sheet to the doctor in attendance.

Inhalation Remove to fresh air. IF exposed or concerned: Get medical advice/attention.

Eye contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area. Get medical attention if irritation develops and persists.

Skin contact Wash skin with soap and water.

Ingestion Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Call a physician.

Self-protection of the first aider Avoid contact with skin, eyes or clothing.

Most important symptoms and effects, both acute and delayed

Symptoms Burning sensation.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable Extinguishing Media	Caution: Use of water spray when fighting fire may be inefficient.
Specific hazards arising from the chemical	No information available.
Hazardous combustion products	Phosphorus oxides. Sodium monoxide. Carbon monoxide, Carbon dioxide. anhydrous acids.
Special protective equipment for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

6. ACCIDENTAL RELEASE MEASURES

U.S. Notice Only persons properly qualified to respond to an emergency involving hazardous substances may respond to a spill according to federal regulations (OSHA 29 CFR 1910.120(a)(v)) and per your company's emergency response plan and guidelines/procedures. See Section 13, Special Instructions for disposal assistance. Outside of the US, only persons properly qualified according to state or local regulations should respond to a spill involving chemicals.

Personal precautions, protective equipment and emergency procedures

Personal precautions Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Avoid contact with skin, eyes or clothing.

Other Information Refer to protective measures listed in Sections 7 and 8.

Environmental precautions

Environmental precautions See Section 12 for additional ecological information.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Take up mechanically, placing in appropriate containers for disposal.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

Reference to other sections See section 8 for more information. See section 13 for more information.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Ensure adequate ventilation. Avoid breathing vapors or mists. In case of insufficient ventilation, wear suitable respiratory equipment.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place.
Flammability class Not applicable

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical name	ACGIH TLV	OSHA PEL	NIOSH
Tetrasodium pyrophosphate CAS#: 7722-88-5	-	(vacated) TWA: 5 mg/m ³	TWA: 5 mg/m ³

Appropriate engineering controls

Engineering Controls Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment

Respiratory protection No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required. Wear breathing apparatus if exposed to vapors/dusts/aerosols.

Hand Protection Wear suitable gloves. Gloves must be inspected prior to use. The selected protective gloves have to satisfy the specifications of EU Directive 2016/425 and the standard EN 374 derived from it. Chemical resistant gloves made of butyl rubber or nitrile rubber category III according to EN 374-1:2016. Barrier creams may help to protect the exposed areas of skin.

Eye/face protection If splashes are likely to occur, wear safety glasses with side-shields.

Skin and body protection Wear suitable protective clothing.

General Hygiene Considerations Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product.

Environmental exposure controls Local authorities should be advised if significant spillages cannot be contained. Do not allow into any sewer, on the ground or into any body of water.

Thermal hazards None under normal processing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state Solid
Appearance powder
Color white
Odor Odorless
Odor threshold No data available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
Molecular weight	No data available	
pH	4.9	5% @ 20°C

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Melting point / freezing point 230 °C / 446 °F
Initial boiling point and boiling range No data available
Evaporation rate Not applicable
Vapor pressure Not applicable
Relative vapor density No data available
Specific gravity - VALUE 1 1.74
Partition coefficient log K_{ow} ~ -2.22
Soil Organic Carbon-Water Partition Coefficient log K_{oc} ~ 1.55
Autoignition temperature No data available
Decomposition temperature No data available
Dynamic viscosity Not applicable
Kinematic viscosity Not applicable

Solubility(ies)

Water solubility

Water solubility classification	Water solubility	Water Solubility Temperature
Soluble	> 1000 mg/L	25 °C / 77 °F

Solubility in other solvents

Chemical Name	Solubility classification	Solubility	Solubility Temperature
Acid	Soluble	> 1000 mg/L	25 °C / 77 °F

Other information

Metal Corrosivity

Steel Corrosion Rate 0.23 mm/yr / 0.01 in/yr
Aluminum Corrosion Rate 0.36 mm/yr / 0.01 in/yr

Volatile Organic Compounds (VOC) Content

Not applicable

Chemical name	CAS No	Volatile organic compounds (VOC) content	CAA (Clean Air Act)
Tetrasodium pyrophosphate	7722-88-5	No data available	-

Explosive properties

Upper explosion limit No data available
Lower explosion limit No data available

Flammable properties

Flash point Not applicable

Flammability Limit in Air

Upper flammability limit: No data available

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Lower flammability limit:	No data available
Oxidizing properties	No data available.
Bulk density	No data available

10. STABILITY AND REACTIVITY

Reactivity

Not applicable.

Chemical stability

Stable under normal conditions.

Explosion data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

Possibility of hazardous reactions

None under normal processing.

Hazardous polymerization

None under normal processing.

Conditions to avoid

None known based on information supplied.

Incompatible materials

Strong oxidizing agents, strong acids, and strong bases.

Hazardous decomposition products

Phosphorus oxides. Carbon monoxide. Carbon dioxide.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Inhalation	May cause irritation of respiratory tract.
Eye contact	Causes serious eye irritation. May cause redness, itching, and pain.
Skin contact	May cause irritation. Prolonged contact may cause redness and irritation.
Ingestion	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.
Symptoms	May cause redness and tearing of the eyes.

Acute toxicity

Based on available data, the classification criteria are not met

Mixture

No data available.

Ingredient Acute Toxicity Data

Test data reported below.

Oral Exposure Route

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Tetrasodium pyrophosphate (20 - 30%) CAS#: 7722-88-5	Rat LD ₅₀	2980 mg/kg	None reported	None reported	RTECS

Dermal Exposure Route

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Tetrasodium pyrophosphate (20 - 30%) CAS#: 7722-88-5	Rabbit LD ₅₀	> 2000 mg/kg	None reported	None reported	RTECS

Unknown Acute Toxicity

77% of the mixture consists of ingredient(s) of unknown toxicity.

Acute Toxicity Estimations (ATE)

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral)	No information available mg/kg
ATEmix (dermal)	2,500.00 mg/kg
ATEmix (inhalation-dust/mist)	No information available
ATEmix (inhalation-vapor)	No information available
ATEmix (inhalation-gas)	No information available

Skin corrosion/irritation

Based on available data, the classification criteria are not met.

Mixture

No data available.

Ingredient Skin Corrosion/Irritation Data

Test data reported below.

Chemical name	Test method	Species	Reported dose	Exposure time	Results	Key literature references and sources for data
Tetrasodium pyrophosphate (20 - 30%) CAS#: 7722-88-5	Patch test	Rabbit	500 mg	None reported	Not corrosive or irritating to skin	ECHA

Serious eye damage/irritation

Classification based on data available for ingredients. Irritating to eyes.

Mixture

No data available.

Ingredient Eye Damage/Eye Irritation Data

Test data reported below.

Chemical name	Test method	Species	Reported dose	Exposure time	Results	Key literature references and sources for data
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Tetrasodium pyrophosphate (20 - 30%) CAS#: 7722-88-5	Standard Draize Test	Rabbit	95 mg	4 hours	Corrosive to eyes	ECHA
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Respiratory or skin sensitization

Based on available data, the classification criteria are not met.

Mixture

No data available.

Ingredient Sensitization Data

No data available.

STOT - single exposure

May cause respiratory irritation.

Mixture

No data available.

Ingredient Specific Target Organ Toxicity Single Exposure Data

No data available.

STOT - repeated exposure

Based on available data, the classification criteria are not met.

Mixture

No data available.

Ingredient Specific Target Organ Toxicity Repeat Exposure Data

No data available.

Carcinogenicity

Based on available data, the classification criteria are not met.

Mixture

No data available.

Ingredient Carcinogenicity Data

No data available.

Chemical name	CAS No	ACGIH	IARC	NTP	OSHA
Tetrasodium pyrophosphate	7722-88-5	-	-	-	-

Legend

ACGIH (American Conference of Governmental Industrial Hygienists)	Does not apply
IARC (International Agency for Research on Cancer)	Does not apply
NTP (National Toxicology Program)	Does not apply
OSHA	Does not apply

Germ cell mutagenicity

Based on available data, the classification criteria are not met.

Mixture invitro Data

No data available.

Substance invitro Data

No data available.

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Mixture in vivo Data
No data available.

Substance in vivo Data
No data available.

Reproductive toxicity
Based on available data, the classification criteria are not met.

Mixture
No data available.

Ingredient Reproductive Toxicity Data
No data available.

Aspiration hazard
Based on available data, the classification criteria are not met.

12. ECOLOGICAL INFORMATION

Ecotoxicity Based on available data, the classification criteria are not met.

Unknown aquatic toxicity 0% of the mixture consists of components(s) of unknown hazards to the aquatic environment.

Mixture

Aquatic Acute Toxicity
No data available.

Aquatic Chronic Toxicity
No data available.

Substance

Aquatic Acute Toxicity
No data available.

Aquatic Chronic Toxicity
Test data reported below.

Fish

Chemical name	Exposure time	Species	Endpoint type	Reported dose	Key literature references and sources for data
Tetrasodium pyrophosphate (20 - 30%) CAS#: 7722-88-5	48 hours	<i>Leuciscus idus</i>	LC	1500 mg/L	IUCLID

Persistence and degradability

Mixture
No data available.

Bioaccumulation
MATERIAL DOES NOT BIOACCUMULATE

Mixture
No data available.

Partition coefficient log K_{ow} ~ -2.22

Mobility

Soil Organic Carbon-Water Partition Coefficient log K_{oc} ~ 1.55

Other adverse effects
No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste from residues/unused products Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging Do not reuse empty containers.

US EPA Waste Number No information available

Special instructions for disposal If permitted by regulation. Dilute to 3 to 5 times the volume with cold water. Adjust to a pH between 6 and 9 with an alkali, such as soda ash or sodium bicarbonate. Open cold water tap completely, slowly pour the reacted material to the drain. Allow cold water to run for 5 minutes to completely flush the system. Dispose of material in an E.P.A. approved hazardous waste facility.

14. TRANSPORT INFORMATION

DOT Not regulated

TDG Not regulated

IATA Not regulated

IMDG Not regulated

Additional information

There is a possibility that this product could be contained in a reagent set or kit composed of various compatible dangerous goods. If the item is not in a reagent set or kit, the classification given above applies. If the item is part of a reagent set or kit the classification would change to the following: UN3316 Chemical Kit, Hazard Class 9, Packing Group II or III. If the item is not regulated, the Chemical Kit classification does not apply.

15. REGULATORY INFORMATION

National Inventories

TSCA Complies
DSL/NDSL Complies

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

International Inventories

EINECS/ELINCS Complies
ENCS Complies
IECSC Complies
KECL Complies
PICCS Complies
TCSI Complies

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AICS Complies
NZIoC Complies

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
TCSI - Taiwan Chemical Substances Inventory
AICS - Australian Inventory of Chemical Substances
NZIoC - New Zealand Inventory of Chemicals

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	No
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals

IMERC: Not applicable

U.S. State Right-to-Know Regulations

This product may contain substances regulated by state right-to-know regulations.

Chemical name	New Jersey	Massachusetts	Pennsylvania
Tetrasodium pyrophosphate 7722-88-5	X	X	X

U.S. EPA Label Information

Chemical name	FIFRA	FDA
Tetrasodium pyrophosphate	180.0910	21 CFR 182.70, 21 CFR 182.6789

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

Special Comments

None

Additional information

Global Automotive Declarable Substance List (GADSL)

Not applicable

NFPA and HMIS Classifications

NFPA	Health hazards - 2	Flammability - 0	Instability - 0	Physical and chemical properties -
HMIS	Health hazards - 2	Flammability - 0	Physical hazards - 0	Personal protection - X -1

Key or legend to abbreviations and acronyms used in the safety data sheet

ACGIH	ACGIH (American Conference of Governmental Industrial Hygienists)
ATSDR	ATSDR (Agency for Toxic Substances and Disease Registry)
CCRIS	CCRIS (Chemical Carcinogenesis Research Information System)
CDC	CDC (Center for Disease Control)
CEPA	CEPA (Canadian Environmental Protection Agency)
CICAD	CICAD (Concise International Chemical Assessment Documents)
ECHA	ECHA (The European Chemicals Agency)
EEA	EEA (European Environment Agency)
EPA	EPA (Environmental Protection Agency)
ERMA	ERMA (New Zealand's Environmental Risk Management Authority)
ECOSARS	Estimation through ECOSARS v1.11 part of the Estimation Programs Interface (EPI) Suite™
FDA	FDA (Food & Drug Administration)
GESTIS	GESTIS (Information System on Hazardous Substances of the German Social Accident Insurance)
HSDB	HSDB (Hazardous Substances Data Bank)
INERIS	INERIS (The National Industrial Environment and Risks Institute)
IPCS INCHEM	IPCS INCHEM (International Programme on Chemical Safety)
IUCLID	IUCLID (The International Uniform Chemical Information Database)
NITE	Japan National Institute of Technology and Evaluation (NITE)
NIH	NIH (National Institutes of Health)
NIOSH	NIOSH (National Institute for Occupational Safety and Health)
LOLI	LOLI (List of Lists - An International Chemical Regulatory Database)
NDF	no data
NICNAS	Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
NIOSH IDLH	Immediately Dangerous to Life or Health
OSHA	OSHA (Occupational Safety and Health Administration of the US Department of Labor)
PEEN	PEEN (Pan European Ecological Network)
RTECS	RTECS (Registry of Toxic Effects of Chemical Substances)
SIDS	SIDS (Screening Information Dataset) for High Volume Chemicals
SYKE	The Finnish Environment Institute (SYKE)
USDA	USDA (United States Department of Agriculture)
USDC	USDC (United States Department of Commerce)
WHO	WHO (World Health Organization)

Legend - Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
MAC	Maximum Allowable Concentration	Ceiling	Ceiling Limit Value
X	Listed	Vacated	These values have no official status. The only binding levels of contaminants are those listed in the final OSHA PEL. These lists are for

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reference purposes only. Please note that some reference state regulations of these "liberated" exposure limits in their state regulations.

SKN*	Skin designation	SKN+	Skin sensitization
RSP+	Respiratory sensitization	**	Hazard Designation
C	Carcinogen	R	Reproductive toxicant
M	mutagen		

Prepared By Hach Product Compliance Department

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Revision Note None

Disclaimer

USER RESPONSIBILITY: Each user should read and understand this information and incorporate it in individual site safety programs in accordance with applicable hazard communication standards and regulations.

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End of Safety Data Sheet